

CLAIMS

1. A polarizing plate with optical compensation function, comprising at least two optically compensating layers, the optically compensating layers comprising:

an optically compensating A-layer formed of a polymer film, satisfying conditions represented by formulae (I) and (II) below; and
an optically compensating B-layer formed of a non-liquid crystalline polymer film, satisfying conditions represented by formulae (III) to (V) below,

$$20 \text{ (nm)} \leq Re_a \leq 300 \text{ (nm)} \quad (I)$$

$$1.0 \leq Rz_a / Re_a \leq 8 \quad (II)$$

$$1 \text{ (nm)} \leq Re_b \leq 100 \text{ (nm)} \quad (III)$$

$$5 \leq Rz_b / Re_b \leq 100 \quad (IV)$$

$$1 \text{ (}\mu\text{m)} \leq d_b \leq 20 \text{ (}\mu\text{m)} \quad (V)$$

in the formulae (I) and (II),

$$Re_a = (nx_a - ny_a) \cdot d_a$$

$$Rz_a = (nx_a - nz_a) \cdot d_a$$

where nx_a , ny_a , and nz_a represent refractive indices in an X-axis direction, a Y-axis direction, and a Z-axis direction in the optically compensating A-layer, respectively, with the X-axis direction being an axial direction exhibiting a maximum refractive index within a plane of the optically compensating A-layer, the Y-axis direction being an axial direction perpendicular to the X-axis within the plane, the Z-axis direction being a thickness direction perpendicular to the X-axis and the Y-axis, and d_a represents a thickness of the optically compensating A-layer,

in the formulae (III) to (V),

$$Re_b = (nx_b - ny_b) \cdot d_b$$

$$Rz_b = (nx_b - nz_b) \cdot d_b$$

where nx_b , ny_b , and nz_b represent refractive indices in an X-axis direction, a Y-axis direction, and a Z-axis direction in the optically compensating B-layer, respectively, with the X-axis direction being an axial direction exhibiting a maximum refractive index within a plane of the optically compensating B-layer, the Y-axis direction being an axial direction perpendicular to the X-axis within the plane, the Z-axis direction being a thickness direction perpendicular to the X-axis and the Y-axis, and d_b represents a thickness of the optically compensating B-layer.

2. The polarizing plate with optical compensation function according to claim 1, wherein the polymer film forming the optically compensating A-layer is a stretched film or a liquid crystal film.
- 5 3. The polarizing plate with optical compensation function according to claim 1 or 2, wherein the non-liquid crystalline polymer film forming the optically compensating B-layer is a film of at least one selected from the group consisting of polyamide, polyimide, polyester, polyetherketone, polyaryletherketone, polyamide imide, and polyesterimide.
- 10 4. The polarizing plate with optical compensation function according to any one of claims 1 to 3, further comprising a pressure-sensitive adhesive layer, the pressure-sensitive adhesive layer being arranged on at least one surface of the polarizing plate.
- 15 5. A liquid crystal display comprising a liquid crystal cell and a polarizing plate, wherein the polarizing plate is the polarizing plate according to any one of claims 1 to 4 and is arranged on at least one surface of the liquid crystal cell.
- 20 6. An image display comprising the polarizing plate according to any one of claims 1 to 4.